

REMARKS

Claims 1-4, 7-22, 25-33, 48 and 49 are pending in this application. Upon entrance of the above amendment, claims 2 and 19 will be cancelled. Of these claims, claims 1, 4, 7-10, 18, 21, 22, 25, 26, 48 and 49 stand rejected under 35 USC §102(b) as being anticipated by Hayward; claims 13, 16, 17, 29, 32 and 33 stand rejected under 35 USC §102(b) as being anticipated by or, in the alternative, under 35 USC §103(a) as being obvious over Hayward, and claims 2, 3, 11, 12, 19, 20, 27 and 28 stand rejected under 35 USC §103(a) as being unpatentable over Hayward in view of CA '894. Further, claims 1-4, 7-22, 25-33, 48 and 49 stand rejected under 35 USC §112, second paragraph, as being indefinite for the use of the term "substantial".

In view of the preceding amendments and the following remarks, these rejections are traversed, and reconsideration of this application is respectfully requested.

Upon entrance of the above amendment, the language "a substantial portion of" concerning the amount of graphite dispersed in the polymeric material that has the claimed particle size will be removed from claims 1 and 18. It is believed to be proper that this amendment be entered because it puts this application in better condition for allowance. In view of these amendments, it is believed that the §112, second paragraph, rejection is overcome. It is therefore respectfully requested that this rejection be withdrawn.

Upon entrance of the above amendment, independent claims 1 and 18 will state that the expanded graphite in the composite plate comprises less than 40% by volume of the plate, and claims 2 and 19 will be cancelled. It is believed to be

proper that this amendment be entered because this limitation of Applicant's invention has already been considered in dependent claims 2 and 19.

Applicant respectfully submits that a lower amount of graphite by volume has advantages for a composite separator plate for a fuel cell stack, including lower weight, lower cost, etc., but without the loss of conductivity as a result of the larger size of the particles in the plate. Applicant respectfully submits that Hayward teaches a greater amount of graphite in the mixture that makes the separate plate, particularly 45%-60%. Applicant submits that the main thrust for the use of the Hayward graphite plate is for non-conductive applications, such as high temperature applications including industrial ovens and furnaces, vacuum furnaces and controlled atmosphere heating apparatuses and the like, column 1, lines 16-20 and column 2, lines 35-39. Applicant submits that the language in Hayward of using the graphite material as a bipolar plate in the fuel cell stack is more of an afterthought, and as such does not have the optimum amount of graphite by volume for such a bipolar plate, as now more particularly claimed.

Applicant submits that the reference CA '894, discussed at length in previous responses, also does not teach the amount of carbon in the separator plate as claimed, but teaches a much higher amount of carbon, as discussed on pages 32 and 33 in that document. Therefore, Applicant submits that CA '894 cannot provide the teaching missing from Hayward to make Applicant's independent claims 1 and 18 obvious as amended.

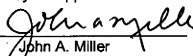
In view of the preceding amendments and remarks, it is respectfully requested that the §102(b) and §103(a) rejections be withdrawn.

It is now believed that this application is in condition for allowance. If the Examiner believes that personal contact with Applicant's representative would

expedite prosecution of this application, he is invited to call the undersigned at his convenience.

Respectfully submitted,

MILLER IP GROUP, PLC
Attorney for Applicants

By: 
John A. Miller
Reg. No. 34985

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42690 Woodward Ave., Ste. 200
Bloomfield Hills, MI 48304
Telephone: (248) 858-4200
Facsimile: (248) 858-4201